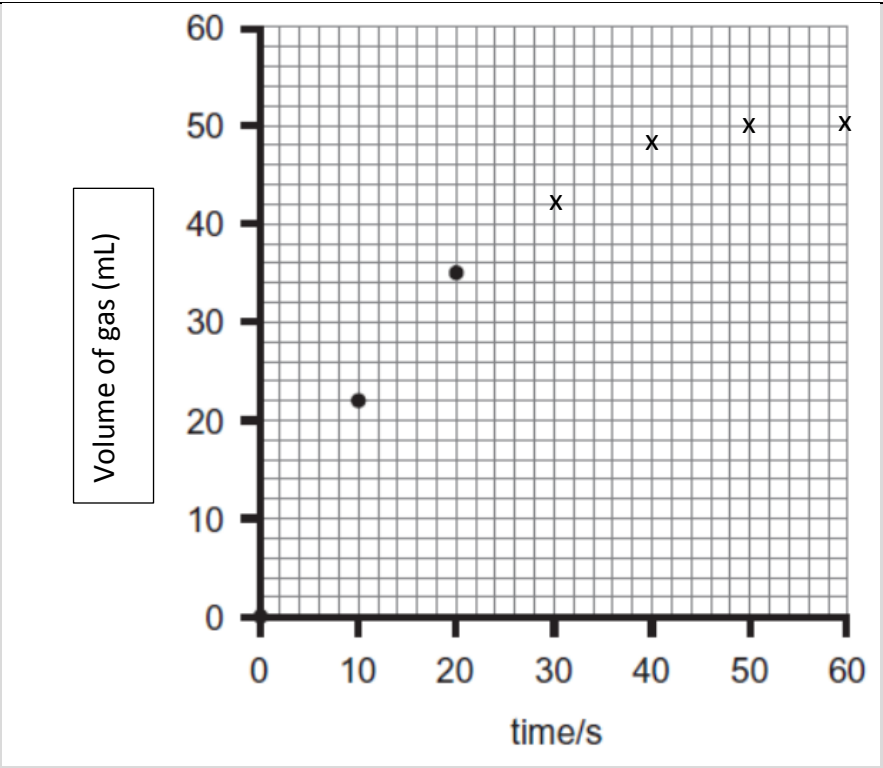
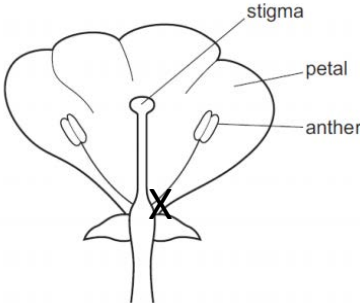


Year 10 Practice Examination 2015

/ means OR eg. green / blue – answer needs green OR blue
 () means additional, not really required eg. Gauze (mat) – gauze would be sufficient
 : means AND eg. red : hot - answer needs red and hot.

Question		Evidence	Marks
One	(a)	(i) S1 (ii) S1, S2 and S3	½ mark each; total = 1 mark
	(b)	For the heaters to work they must (both) be part of a complete circuit. Closing S1 which completes the circuit for the fan means that the heater(s) (arranged in parallel) can also work if the heater switch(es) is/are closed.	1 mark 1 mark
	(c)	Risk of fire as plugs overheat	1 mark
Two	(a)	D	1 mark
	(b)	Any correct answer e.g. matching “ancient rocks” found on both continents, Shale rocks with similar fossils found on both continents	1 mark
	(c)	(i) Tsunami (ii) as a result of an earthquake the ocean floor lifted (above part A) displacing a large volume of water	1 mark 1 mark
Three	(a)	When the switch is closed the coil of wire creates an electromagnet. The electromagnet attracts the iron bolt and so the bolt moves to the left	1 mark 1 mark
	(b)	No it would not work : aluminium metal is not magnetic	1 mark
	(c)	More voltage / more turns (coils) of wire	1 mark
Four	(a)	hydrogen	½ mark
	(b)	3 = orange, 7 = green, 13 = purple	2-3 correct = 1 mark
	(c)	Sample A : red acidic Sample B: 11 (accept 12) Sample C: 4 (accept 3) Sample D: alkaline	½ mark each; total = 2 ½ marks
	(d)	Chop up cabbage – boil in water – filter out cabbage	1 mark
	(e)	< 7: Any one of orange juice, rain water, vinegar, sour milk, >7: Any one of toothpaste, milk of magnesia, washing soda	½ mark each; total = 1 mark

Five	(a)		<p>½ mark for each correct point; total = 2 marks</p> <p>1 mark for smooth curved line drawn through the points (from (0.0))</p> <p>y-axis labelled: ½ mark</p> <p>units mL: ½ mark</p>
	(b)		
	(c)	14 s (or value read off graph)	1 mark
	(d)	Bubble gas through limewater Turns from clear to cloudy / milky	½ mark ½ mark
Six	(a)	Any sensible answer e.g. covers over shoes, gloves, tape off area etc: ½ mark each	1 mark 1 mark
	(b)	(i) arch (ii) loop	½ mark ½ mark
	(c)	Brush with black powder / carbon (must be black as a white surface) lift with (sticky) tape / photograph it	1 mark 1 mark
	(d)	Suspect 3	1 mark
Seven	(a)	X ↑ Y ↓	½ mark ½ mark
	(b)	Convection (current)	1 mark
	(c)	Purple colour rises at X, travels across top of water and falls at Y. Purple colour travels through water in bottom of beaker to where it was and cycle repeats. Hot water is less dense as the particles spread out when they gain energy, so it rises, taking the dye with it. As the water cools the particles move closer together making it more dense so it sinks	½ mark ½ mark 1 mark 1 mark

Eight	(a)	Turn off the Bunsen burner as ethanol is (highly) flammable	1 mark
	(b)	Chlorophyll	1 mark
	(c)	(i) Leaf A = black Leaf B = brown (no change to iodine colour)	½ mark ½ mark
		(ii) Leaf A – made starch as it has sunlight Leaf B – could not make starch / had used up all its starch as it did not have any sunlight	1 mark 1 mark
Nine	(a)	Radiation	1 mark
	(b)	Black is a better absorber of radiation / IR So more heat would be transferred to the water in the bag (or white poor absorber etc)	1 mark 1 mark
	(c)	20°C at 0.2 hours 37°C at 1.2 hours So it took one hour (1-2 – 0.2)	½ mark ½ mark 1 mark
Ten	(a)	Anther – hang outside in wind pollinated flower : located inside petals in the insect pollinated Stigma - hang outside / is feathery in wind pollinated flower : not feathery / located inside petals in the insect pollinated	1 mark 1 mark
	(b)	X in position near base of inside of petals 	1 mark
	(c)	To avoid competition with the parent plant : (any 2 of) for sunlight, water, minerals (also accept to to colonise new areas, lessen chance of predator eating all the seeds right below the parent plant etc)	½ mark ½ mark
	(d)	Any seed is selected and a correct dispersal mechanism is described e.g. B. Cocklebur has hooks that attach it to fur / feathers / clothes and it falls off / is picked off in another area	1 mark
			50 marks